

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently Amended) A digital device inputting and outputting data through ~~configured with controlling data input output by connecting~~ physical plugs and channels of a bus interface of which channel number is smaller than the physical plugs, comprising:

configuration information including

~~channel priority indicating the priority given to respective channels~~
~~corresponding to one of the plugs; and~~

~~channel selecting unit operable to select a channel form among the~~
~~channels according to the order of the channel priority~~

plug correlation information indicating a correlation between a logical
plug indicating the input-output interface for data virtually and the physical plug
indicating the input-output interface for data actually,

connection information indicating the connecting condition of the physical
plugs and respective channels,

channel priority information indicating the priority given to respective
channels as viewed from the physical plugs, and

physical plug priority information indicating the priority given to
respective physical plugs as viewed from the channels;

channel selecting unit operable, at the time of inputting or outputting data to or from the other plural devices,

to specify a physical plug corresponding to a logical plug according to the plug information,

to specify a channel to which the physical plug is connected according to connection information,

to select an optimum channel according to the channel priority information, and

to detect an existence of the channel competition regarding the specified channel;

bus interface control unit operable to control the bus interface so as to start the input and output of the data using the channel selected by the channel selecting unit; and

channel switching unit operable to switch the channel to a plug of which the priority of the priority information is highest, in case of the channel competition.

2. (Cancelled)

3. (Withdrawn) A digital device for controlling by a physical plug to output data from a physical plug to the other specific digital device by using a channel of a bus interface, wherein, in case of outputting data having the same type of format from a plural physical plug, the data output having the same type of format is to be controlled by a logical plug.

4. (Previously Presented) The digital device according to claim 1, wherein the data is synchronous stream one.

5. (Previously Presented) The digital device according to claim 1, wherein the bus interface is compliant with the standard of IEEE1394.

6. (Currently Amended) ~~A data input-output control method of a digital device for inputting data from a specific digital device to a physical plug and outputting data from a physical plug to the specific digital device by using a channel of a bus interface, which~~ inputting and outputting data through physical plugs and channels of a bus interface which channel number is smaller than the physical plugs comprising a step of:

~~registering as configuration information at least connection information between a channel of a bus interface and a physical plug, and priority information of channels of a bus interface judged from the aspect of each physical plug; and~~

~~selecting a channel with the highest priority among channels of a bus interface connected with a specific physical plug by referring to the configuration information~~

plug correlation information indicating a correlation between a logical plug indicating the input-output interface for data virtually and the physical plug indicating the input-output interface for data actually,

connection information indicating the connecting condition of the physical plugs and respective channels,

channel priority information indicating the priority given to respective channels as viewed from the physical plugs, and

physical plug priority information indicating the priority given to
respective physical plugs as viewed from the channels;
selecting, at the time of inputting or outputting data to or from the other plural devices, a
channel including the steps of
specifying a physical plug corresponding to a logical plug according to the
plug information,
specifying a channel to which the physical plug is connected according to
connection information,
selecting an optimum channel according to the channel priority
information, and
detecting an existence of the channel competition regarding the specified
channel;
controlling the bus interface so as to start the input and output of the data using the
selected channel; and
switching the channel to a plug of which the priority of the priority information is
highest, in case of the channel competition.

7. (Cancelled)

8. (Withdrawn) A data input-output control method of a digital device for controlling by a physical plug to output the data from a physical plug to the other specific digital device by using a channel of a bus interface, wherein, in case of outputting data having the same type of

format from a plural physical plug, the data output having the same type of format is to be controlled by a logical plug.

9. (Currently Amended) Configuration information for implementing ~~a data input-output control function of a digital device for inputting data from a specific digital device to a physical plug and outputting data from a physical plug to the specific digital device by using a channel of a bus interface~~ inputting and outputting data through physical plugs and channels of a bus interface of which channel number is smaller than the physical plugs, comprising: at least connection information between a channel of a bus interface and a physical plug, and priority information of channels of a bus interface judged from the aspect of each physical plug

plug correlation information indicating a correlation between a logical plug indicating the input-output interface for data virtually and the physical plug indicating the input-output interface for data actually;

connection information indicating the connecting condition of the physical plugs and respective channels;

channel priority information indicating the priority given to respective channels as viewed from the physical plugs; and

physical plug priority information indicating the priority given to respective physical plugs as viewed from the channels, wherein

at the time of inputting or outputting data to or from the other plural devices a channel is selected by

specifying a physical plug corresponding to a logical plug according to the plug information,

specifying a channel to which the physical plug is connected according to connection information,

selecting an optimum channel according to the channel priority information, and

detecting an existence of the channel competition regarding the specified channel;

the bus interface is controlled so as to start the input and output of the data using the channel selected by the channel selecting unit; and

the channel is switched switching to a plug of which the priority of the priority information is highest, in case of the channel competition.

10. (Cancelled)

11. (Currently Amended) A data input-output control system for controlling ~~to input and output data between a specific digital device and another specific digital device connected through a bus interface~~ inputting and outputting data through physical plugs and channels of a bus interface of which channel number is smaller than the physical plugs, comprising:

configuration information including

~~connection information between a channel of a bus interface and a physical plug, and priority information of channels of a bus interface judged from the aspect of each physical plug;~~ and plug correlation information indicating a correlation between a logical plug indicating the input-output interface for data

virtually and the physical plug indicating the input-output interface for data actually,

connection information indicating the connecting condition of the physical plugs and respective channels,

channel priority information indicating the priority given to respective channels as viewed from the physical plugs, and

physical plug priority information indicating the priority given to respective physical plugs as viewed from the channels;

channel selecting means selecting a channel with the highest priority among channels of a bus interface connected with the specific physical plug by referring to the configuration information operable, at the time of inputting or outputting data to or from the other plural devices,

to specify a physical plug corresponding to a logical plug according to the plug information,

to specify a channel to which the physical plug is connected according to connection information,

to select an optimum channel according to the channel priority information, and

to detect an existence of the channel competition regarding the specified channel;

bus interface control means operable to control the bus interface so as to start the input and output of the data using the channel selected by the channel selecting unit; and

channel switching means operable to switch the channel to a plug of which the priority of the priority information is highest, in case of the channel competition.

12. (Cancelled)

13. (Currently Amended) The digital device according to claim 1 2, wherein the data is synchronous stream one.

14. (Withdrawn) A digital device according to claim 3, wherein the data is synchronous stream one.

15. (Currently Amended) The digital device according to claim 15 2, wherein the bus interface is compliant with the standard of IEEE1394.

16. (Withdrawn) A digital device according to claim 3, wherein the bus interface is compliant with the standard of IEEE1394.